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EXAMINER

RAMPURIA, SATISH

ART UNIT PAPER NUMBER

2191

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/736,168	Applicant(s) MATSUMOTO, NAOTO	
	Examiner Satish S. Rampuria	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-12 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-12 and 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. This action is in response to the Amendment received on Aug 09, 2005.
2. Claims 7 and 13 previously cancelled by the Applicants.
3. Claims 1-6, 8-12, and 14-21 are pending.

Response to Arguments

4. Applicant's arguments with respect to claims have been considered but they are not persuasive.

In the remarks, the applicant has argued that:

- Examiner has not made the prima facie showing of obviousness required to sustain the rejection of claims 1, 4, 5, 9-11, 15 and 18 over the combination of the Honda et al. patent and the Ichinose patent document. Further, no combination would, in any case, teach or suggest the features of the invention recited in these claims.
- For claims 2,3,6, 8,12,14,16,17,20 and 21, Applicants repeatedly argued that the limitation sending new data mapping information and an associated data remapping portion (or program) are not taught or suggested by the Ichinose patent document and Yoshikiawa, Richmond, do not remedy this omission of the Ichinose patent document.

Examiner's response:

- In response to Applicants arguments, regarding the prima facie, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge

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generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). It is noted that the rejection clearly points out where Ichinose Patent and Honda teach the claimed features and why it would have been obvious to combine their teachings. In this case, Ichinose patent discloses the updating flash by sending a control program and executing it upon receiving remotely as claimed in claim 1 (see the rejection below). Ichinose patent however, does not disclose data mapping information (see the rejection below), but, Honda patent disclose the data read request, and also it was noted by the applicant in the Remarks mailed on 3/30/2004. The data mapping is performed by Honda patent, as claimed (data mapping), by mapping the previous data and the transferred request data. The motivation is also provided by the Examiner that to optimize the data update processing. Thus, both Ichinose patent and Honda patent disclose update/rewrite data on a disk/memory remotely and therefore, they are computer analogous art and are equivalent to comparing scooter to scooter. Rather, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Therefore, the rejection is proper and maintained herein.

- In response to Applicants arguments regards to claims 2, 3, 6, 8, 12, 14, 16, 17, 20 and 21 for the limitation sending new data mapping information and an associated data remapping portion (or program) are not taught or suggested by the Ichinose patent

document and Yoshikiawa, Richmond, do not remedy this omission of the Ichinose patent document. However, this limitation is taught by Honda patent, see the rejection below. Applicants make general allegations and do not point out any errors in the rejection. Therefore, the rejection is proper and maintained herein.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1, 4, 5, 9, 10, 11, 15, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinose, Japanese Patent No. JP411265282A, hereinafter called Ichinose in view of US Patent No. 5,651,132 to Honda, hereinafter called Honda.

Per claim 1:

Ichinose discloses:

- A vending machine control program rewrite system for rewriting a control program of a vending machine (Detailed Description of the Invention, page 1 paragraph 1, lines 18-19 “rewrites a control program in more detail about the control unit of the vending machine”), said vending machine comprises a control device having a storage unit storing the control program as a current one of the control program (Detailed Description of the Invention, page 1 paragraph 7, lines 38-39 “when rewriting of a control program goes wrong in the control unit of the vending machine using the flash memory”) and (Detailed Description of the Invention, page 1 paragraph 8, lines 44-45 “The flash memory in which the control program which controls a vending machine was written, RAM which memorizes data etc.”), which comprises;
- A host computer adapted to send a new one of the control program to said vending machine (Detailed Description of the Invention, page 1 paragraph 7, line 40 “enables rewriting of a control program even from a remote (host computer) place”);
- Said control device comprising a rewritable memory as said storage unit (Detailed Description of the Invention, page 1 paragraph 1, line 19 “control unit (control device) of the vending machine which carried the flash memory”), a receiver adapted to receive said new control program from said host computer (Detailed Description of the Invention,

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page 3 paragraph 15, lines 1-2 “A control program change dispatch demand command is received at the time of the call in of the vending machine”) and (Detailed Description of the Invention, page 3 paragraph 22, lines 31-32 “rewriting of the control program of a vending machine from a remote place and a control program is rewritten”), and a rewriter adapted to rewrite said control program in said rewritable memory from said current one to said new one of the control program (Detailed Description of the Invention, page 1 paragraph 8, lines 45-46 “and the program data write-in equipment (rewriter) for writing a new vending machine control program in the aforementioned flash memory”) and said control device including a controller for executing said new control program (Solution of the Invention, page 1 “When it is judged that the control program is completely written... CPU 10 executes the control program...”).

Ichinose does not explicitly disclose host computer sends to vending machine new one of control program together with new data mapping information.

However, Honda discloses in an analogous computer system host computer sends to vending machine new one of control program together with new data mapping information (col. 9 lines 26-34 “If previous data and previous parity data corresponding to the transfer requested data are not found in the previous data memory 13 and the previous parity data memory 14, respectively, the host computer 1 generates and sends a data read request through the array controller 2 to disk units 3 which contain the transfer requested data, and previous data and previous parity data corresponding to this transfer requested data, based on the mapping information detected or generated in the above-mentioned mapping”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of sending data (program or mapping information, etc.) to machine as taught by Honda into the method for upgrading the vending machine program as taught by Ichinose. The modification would be obvious because of one of ordinary skill in the art would be motivated to send a program along with new associated data information from host computer to optimize parity data update processing (col. 11, lines 30-46).

Per claims 4 and 10:

Ichinose discloses:

- said host computer sends to said vending machine said new one of the control program (Detailed Description of the Invention, page 3 paragraph 15, lines 1-2 “A control program change dispatch demand command is received at the time of the call in of the vending machine”) and (Detailed Description of the Invention, page 1 paragraph 8, lines 45-46 “writing a new vending machine control program”) together with a new attribute information of said new one of the control program (Detailed Description of the Invention, page 2 paragraph 9, lines 10-12, “Writing is performed about area with the software of empty area or the oldest version. The processing program of a power up is equipped with a version acquisition means to acquire the program version of each storage area”). As described in the applicant’s specification, attribute information can be a version number (page 4, lines 4-5, “The attribute information is information ... such as version”).

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- said rewriter has a rewrite determinator adapted to determine based on said new attribute information whether or not the control program should be rewritten (Detailed Description of the Invention, page 2 paragraph 9, lines 12-14, "it is characterized by equipping the control program of the area which has the newest version number among the version numbers obtained from the aforementioned version acquisition means with a means to pass the right of execution of a central arithmetic unit").

Per claims 5 and 11:

Ichinose discloses:

- said control device having a rewrite program previously stored therein, wherein said rewriter performs rewrite of the control program to said new one by executing said rewrite program, (Detailed Description of the Invention, page 1 paragraph 7, line 39, "it attains low-cost-ization of the rewriting equipment (rewrite program) of a control program") and (Detailed Description of the Invention, page 2 paragraph 10, lines 17-19, "in the writer program for new control program writing on Above RAM, passes and writes the right of execution of a central arithmetic unit in a writer program).

Per claim 9:

Ichinose discloses:

- A vending machine having a control device comprising a storage unit storing a control program storing as a current one of the control program therein and an arithmetic (Detailed Description of the Invention, page 1 paragraph 8, lines 43-44 "The control unit

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- of the vending machine of the claim 1 of this invention the flash memory in which the control program which controls a vending machine”) and logic unit for executing said current one of the control program (Detailed Description of the Invention, page 1 paragraph 8, lines 46-48 “In the control unit of the vending machine which consists of central arithmetic units which control the whole The aforementioned flash memory a program required for control of a vending machine” and Detailed Description of the Invention, page 2 paragraph 9, lines 14 “means to pass the right of execution of a central arithmetic unit (arithmetic logic unit”), a host computer sending a new one of the control program to said vending machine (Detailed Description of the Invention, page 1 paragraph 7, line 40 “by having a means to download a new control program from a pin center, large computer (host computer)”), wherein said control device further comprise:
- A rewritable memory as said storage unit (Detailed Description of the Invention, page 1 paragraph 8, lines 43-44 “The control unit of the vending machine of the claim 1 of this invention The flash memory in which the control program which controls a vending machine”);
 - A communication controller adapted to control communication with said host computer (Detailed Description of the Invention, page 2 paragraph 13, lines 33-34 “The communication device (communication controller) to which the control unit of the vending machine of a claim 6 communicates with the pin center, large computer of a remote (host computer) place”); and
 - Rewriter adapted to rewrite the control program received from the host computer via said communication controller (Detailed Description of the Invention, page 1 paragraph 8,

lines 45-46 “and the program data write-in equipment (rewriter) for writing a new vending machine control program in the aforementioned flash memory”).

Ichinose does not explicitly disclose host computer sends to vending machine new one of control program together with new data mapping information.

However, Honda discloses in an analogous computer system host computer sends to vending machine new one of control program together with new data mapping information (col. 9 lines 26-34 “If previous data and previous parity data corresponding to the transfer requested data are not found in the previous data memory 13 and the previous parity data memory 14, respectively, the host computer 1 generates and sends a data read request through the array controller 2 to disk units 3 which contain the transfer requested data, and previous data and previous parity data corresponding to this transfer requested data, based on the mapping information detected or generated in the above-mentioned mapping”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of sending data (program or mapping information, etc.) to machine as taught by Honda into the method for upgrading the vending machine program as taught by Ichinose. The modification would be obvious because of one of ordinary skill in the art would be motivated to send a program along with new associated data information from host computer to optimize parity data update processing (col. 11, lines 30-46).

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Claims 15, 18, and 19 are the system claims and recited similar limitations as recited in the previously rejected claims 1, 4, and 5, respectively. Therefore, same rationale applies and claims 15, 18, and 19 are rejected as claims 1, 4, and 5.

10. Claims 2 and 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinose in view of US Patent No. 5,657,301 to Yoshikawa, hereinafter called Yoshikawa.

Per claim 2:

Ichinose disclose that host computer sends new control program to vending machine. Ichinose does not disclose that control program sent “simultaneously” and to “plurality” of vending machine.

However, Yoshikawa, discloses simultaneously rewrite the control program of the plurality of automatic changer systems by the external host computer (col. 4, lines 24-27, “it is possible to simultaneously apply a program rewrite command to a plurality of automatic changer systems (vending machines) so as to simultaneously rewrite the control program... by the external host computer”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Yoshikawa in to teaching of Ichinose to have the control program sent concurrently to a several systems (vending machines) from the host computer. The modification would be obvious because of one of ordinary skill in the art would be motivated to operate rewriting a program and acquiring the data of the system concurrently and to I from several systems (vending machine).

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Claim 16 is the system claim and recited similar limitations as recited in the previously rejected claim 2 (see previous office action, mailed November 5, 2003). Therefore, same rationale applies and claim 16 is rejected as claim 2.

11. Claims 3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinose in view of US Patent No. 5,581,485 to Richmond, hereinafter called Richmond.

Per claim 3:

Ichinose discloses that host computer sends control program to the vending machine. Ichinose does not disclose control program sent at “predetermined schedule” to vending machine.

However, Richmond discloses control program are configured to suspend/continue execution at predetermined suspend point (Abstract, lines 16-22 “The control programs are configured to suspend execution at predetermined suspend points and to continue execution at return points associated with said suspend points, and are executed sequentially in a concurrent manner by a scheduler program so that execution of the next control program in sequence continues when an executing program suspends.”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Richmond in to teaching of Ichinose to have host computer send the control program to vending machine in accordance with a predetermined schedule. The modification would be obvious because of one of ordinary skill in the art would be motivated to send a program (control program) at prearranged timetable from host computer.

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Claim 17 is the system claim and recited similar limitations as recited in the previously rejected claim 3. Therefore, same rational applies and claim 17 is rejected as claim 3.

12. Claims 6, 12, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinose in view of US Patent No. 5,603,056 to Totani, hereinafter called Totani.

Per claims 6 and 12:

Ichinose discloses that host computer sends control program to the vending machine and write - in equipment writes new control program with a means to pass the right of execution. Ichinose does not disclose host computer sends control program with a rewrite program.

However, Totani, in detailed description of the preferred embodiments, discloses the host computer sends the control program together with rewrite program (col. 4, lines 30-33, "The 110 interface 4 connects the control microcomputer 1 to the host computer 7 to receive a new control program or a new rewrite program from the host computer") and rewriter performs the rewrite of the control program by executing the rewrite program (col. 5, lines 27-34, "After rewrite program stored in the rewrite program ...executes the rewrite routine saved in the RAM 3 (step S3).")

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Totani into teaching of Ichinose to send control program together with rewrite program and rewrite control program by executing the rewrite program (Totani, col. 7, lines 8-14). The modification would be obvious because of one of ordinary skill in the art would be motivated to send the control program together with a

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rewrite program and execute the rewrite program to rewrite the control program received from host computer (Totani, col. 7 lines 7-14).

Per claim 20 is the system claim and recited similar limitations as recited in the previously rejected claim 6. Therefore, same rationale applies and claim 20 is rejected as claim 6.

13. Claims 8, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinose in view of US Patent No. 5,307,346 to Fieldhouse, hereinafter called Fieldhouse.

Per claims 8 and 14:

Ichinose disclose all the limitations except data remapping program received from the host computer.

However, Fieldhouse, in Network-Field interface for manufacturing systems, discloses the program module for the mapping is sent from the host computer (col. 3, lines 43-48 “The program module which achieves the mapping between the READ & WRITE services of the network's communication protocol and the data locations within the attached field device may be termed a Complex Device VIVID, or CD VIVID, and again it is this with which a host computer actually communicates”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fieldhouse into teaching of Ichinose to have the program (data re-mapping) module sent from host computer. The modification would be obvious because of one of ordinary skill in the art would be motivated to send a program (data remapping) along with new commonly used information from host computer (col. 2, lines 43-48).

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Claim 21 is the system claim and recited similar limitations as recited in the previously rejected claim 8. Therefore, same rationale applies and claim 21 is rejected as claim 8.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:30 am to 5:00 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wei Y. Zhen** can be reached on **(571) 272-3708**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Satish S. Rampuria
Patent Examiner/Software Engineer
Art Unit 2191
10/31/2005


WEI Y. ZHEN
PRIMARY EXAMINER